Amendments to the Claims:

      This following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

      1. (currently amended) A method of operating an optical receiver system, said method comprising:

      receiving an optical signal;

      converting said optical signal to an electrical signal;

      automatically identifying a clock rate of said electrical signal <u>through a clock recovery circuit including a phase-locked loop</u>; and

      using said identified clock rate to select a signal type of said optical signal from a set of possible signal types.

      2. (currently amended) The method of claim 1 wherein automatically identifying said clock rate comprises:

      attempting <u>iteratively</u> to lock to a bit clock of said electrical signal using a plurality of clock rates;

      upon achieving lock, determining a current one of said plurality of clock rates to be said identified clock rate.

      3. (original) The method of claim 2 wherein automatically identifying said clock rate comprises :

      evaluating a frequency difference between a bit clock recovered from said signal and a reference clock;

      determining said identified clock rate based on said difference.

      4. (original) The method of claim 1 further comprising:

      based on said signal type, selecting a traffic processing block to further process said electrical signal.

5. (original) The method of claim 1 further comprising:

based on said signal type, selecting a performance monitoring method to monitor quality of said optical signal.

6. (original) The method of claim 1 wherein one of said possible signal types is SONET OC-192.

7. (original) The method of claim 1 wherein one of said possible signal types is SDH STM-64.

8. (original) The method of claim 1 wherein one of said possible signal types is 10 Gigabit Ethernet having a bit rate of 10.325 Gbps.

9. (original) The method of claim 1 wherein one of said possible signal types is G.709 having a bit rate of 10.709 Gbps.

10. (original) The method of claim 1 wherein one of said possible signal types is 10 Gigabit Ethernet employing Forward Error Correction and having a bit rate of 11.090 Gbps.

11. (currently amended) Apparatus for operating an optical receiver system, said apparatus comprising:

a clock recovery block that recovers a clock signal from a received optical signal; and

a control processor that directs said clock recovery block to attempt <u>iteratively</u> to lock to said optical signal using a plurality of clock rates, and that upon achieving lock using a clock rate matching that of said optical signal, employs said matching clock rate to determine a signal type of said optical signal.

12. (original) The apparatus of claim 11 wherein said control processor, based on said signal type, selects a traffic processing block to further process said electrical signal.

13. (original) The apparatus of claim 11 wherein said control processor, based on said signal type, selects a performance monitoring block to monitor quality of said optical signal.

14. (original) The apparatus of claim 11 wherein one of said possible signal types is SONET OC-192.

15. (original) The apparatus of claim 11 wherein one of said possible signal types is SDH STM-64.

16. (original) The apparatus of claim 11 wherein one of said possible signal types is 10 Gigabit Ethernet having a bit rate of 10.325 Gbps.

17. (original) The apparatus of claim 11 wherein one of said possible signal types is G.709 having a bit rate 10.709 Gbps.

18. (original) The apparatus of claim 11 wherein one of said possible signal types is 10 Gigabit Ethernet employing Forward Error Correction and having a bit rate of 11.090 Gbps.

19. (currently amended) Apparatus for operating an optical receiver system, said apparatus comprising:
    a clock recovery block that receives a clock signal from a received optical signal and measures a difference of rate between said clock signal and a reference clock; and
    a control processor that, based on said difference of rate from said clock recovery block, determines a signal type of said received optical signal.

20. (currently amended) The apparatus of claim ~~11~~ 19 wherein said control processor, based on said signal type, selects a traffic processing block to further process said electrical signal.

21. (original) The apparatus of claim 19 wherein said control processor, based on said signal type, selects a performance monitoring block to monitor quality of said optical signal.

22. (original) The apparatus of claim 19 wherein one of said possible signal types is SONET OC-192.

23. (original) The apparatus of claim 19 wherein one of said possible signal types is SDH STM-64.

24. (original) The apparatus of claim 19 wherein one of said possible signal types is 10 Gigabit Ethernet having a bit rate of 10.325 Gbps.

25. (original) The apparatus of claim 19 wherein one of said possible signal types is G.709 having a bit rate 10.709 Gbps.

26. (original) The apparatus of claim 19 wherein one of said possible signal types is 10 Gigabit Ethernet employing Forward Error Correction and having a bit rate of 11.090 Gbps.

27. (currently amended) Apparatus for operating an optical receiver system, said apparatus comprising:
    means for receiving an optical signal;
    means for converting said optical signal to an electrical signal;
    means for automatically identifying a clock rate of said electrical signal through a clock recovery circuit including a phase-locked loop; and
    means for using said identified clock rate to select a signal type of said optical signal from a set of possible signal types.